

REMARKS

The above-noted amendments are respectfully submitted in response to the official action dated January 14, 2008. The amendments to the claims are specifically supported in the specification at various locations including paragraph [0055], paragraph [0058] and in the drawings herein. No new matter is included therein. These amendments are respectfully submitted in response to the official action of January 14, 2008, and applicants submit that the amended claims herein are fully patentable over the prior art, and reconsideration and allowance of these claims is therefore respectfully solicited.

Claim 55 has been rejected to on the basis that "said frame" in line 5 lacks proper antecedent basis. However, in view of the above-noted amendments to claim 55, it is respectfully submitted that these discrepancies have now been obviated, and that claim 55 is now correct and understandable, and that this rejection has now been obviated.

Claims 40-48, 51 and 54 have been rejected as being anticipated by Holdregger under 35 U.S.C. § 102(b). With respect to claim 40, the Examiner contends that Holdregger teaches a doctor blade mounting system with a doctor blade clamping portion 1 (Fig. 4), comprising a solid material including a slit 2 for receiving a doctor blade (squeegee 10); "inking blade in a printing press" (col.1 ll.45-46); and clamping means 3 and 12 for clamping the doctor blade within the slit, the clamping means being resilient ("clamping tube which is made of a pressure type elastic material" (col.3 ll.36-37)); "spring strip 12" (col.3 ll.61-62) (both the elastic and spring are resilient) arranged to provide a damping motion for the doctor blade.

With respect to claim 41, Holdregger is said to also teach the clamping means tightly received within the slit, and respecting claim 42, where the clamping means fixes the doctor

blade by means of friction (blade 10 appears to be in frictional contact with 12, which is frictionally pressed against blade 10 by strip 3).

Holdregger is also said to teach that the clamping means supports at least one side of the doctor blade (claim 43), and the clamping means is resiliently disposed within the slit (claim 44), while the clamping means is removably disposed within the slit (both 3 and 12 appear to be removable).

In addition, Holdregger is said to teach the clamping means comprising an elastomeric member (claim 46), and at least a portion is in the shape of a wedge strip intended to fit and lock within a cross-sectional profile of the slit (claim 47), and at least a portion of the clamping means supports an edge of the doctor blade within the slit (claim 48).

Finally, Holdregger is said to teach a method for removably clamping a doctor blade 10 in a clamping member comprising an elongated clamping member of solid material 1 including a slit 2 for introducing the doctor blade by inserting a portion of the doctor blade into the slit (a portion of blade 10 is in slit 2 in Fig. 4), and inserting resilient clamping means into the slit for resiliently supporting at least one side of the doctor blade within the slit (claim 51), as well as attaching the clamping means to the substantially U-shaped support 18 (claim 54). This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

The Holdregger patent itself is directed to a mounting device for a squeegee or inking blade for use in a printing press. In the embodiment shown in Figs. 1-4, the squeegee or inking blade is initially retained within recess 2 by means of a spring 12, which temporarily retains the squeegee blade therein. The real mechanism for retaining the squeegee, however, includes the combination of longitudinal groove 4 which communicates with

recess 2 and in which is retained a clamping tube 3 shown therein. This clamping tube includes bellows-like side walls and a "relatively rigid and thick front wall 7 facing the recess 2." (Col.3 ll.39-40.) As can thus be seen in Fig. 1 of Holdregger, before inflation of the clamping tube 3 it does not serve any function in retaining the squeegee or inking blade within the recess 2. It is only upon activation of the pressure retaining valve 9 and inflation of the clamping tube 3 that the thick front wall 7 is pressed against the squeegee or inking blade to retain it within the recess 2. In addition, the combination of locating stop 14 at the mouth of groove 2 with box section 19 of the inking blade with bottom edges 20 is adapted to engage stop 14. It is thus the combination of these three elements, the spring, the locating stop, and the clamping tube, which are adapted to retain the squeegee or inking blade within the groove 2. Furthermore, it is only on pressurization of the clamping tube that this can be accomplished in Holdregger.

Turning to the present claims, it is initially noted that these claims now require that the clamping means comprise an elastomeric material which is disposed within the elongated slit and which is accessible from the opening in the slit. In this manner, not only is the elastomeric material resiliently disposed with respect to the doctor blade to provide damping action for the doctor blade, but it is also accessible from the opening to assist in removing the doctor blade from the elongated slit. None of this is the case in Holdegger. To the contrary, the only potential "elastomeric material" used in Holdregger is the clamping tube 3, which again only serves that function upon inflation. Nevertheless, it is certainly not accessible from the opening of the slit, and therefore cannot assist in removing the doctor blade from the elongated slit. In accordance with the present invention, however, it is a simple

matter to press clamping means, such as the wedge strip of claim 36, which is preferably lubricated, within the slit to provide an evenly distributed force holding the doctor blade against the opposite wall of the slit itself or against another such wedge strip. In this manner, pure friction between the doctor blade and the slit and the doctor blade and the wedge strip itself retains the doctor blade therewithin, once again as opposed to the pressure means in Holdregger. On the other hand, in order to readily remove the doctor blade, one can easily, and preferably by hand, simply remove the portion of the wedge strip extending outside of the opening in the slit, such as by stretching the wedge strip to reduce its cross-section, to easily remove same, thus leading to ready removal of the doctor blade itself. In connection with the Holdregger device, it is not only impossible to remove the clamping tube from the device without first removing the doctor blade, but in fact it must be depressurized in order to be able to even accomplish that result. No such complex operation is required by the present invention, particularly since the clamping means itself is accessible through the opening in the slit.

In addition, and in view of the nature of the device shown in Holdregger, as it is described in that specification, the squeegee or inking blade is used to force ink through a screen on which ink has been distributed in a thin layer. Because of the complex nature of the device in Holdregger, difficulties are avoided which would take place if the ink were to contact these upper portions of the device distal from the end of the squeegee itself, such as if it were used in the type of rotary apparatus shown in the present application. In accordance with the present invention, however, because of the simplified nature of this apparatus, it can be used in accordance with the rotatable cylinders in printing equipment in accordance with the present invention in which it can be covered

with ink from all directions and nevertheless be readily cleaned each time it is necessary to change the doctor blade during normal printing operations. Once again, the elongated slit of the present invention is readily accessible for cleaning without the presence of difficult angles or nooks and crannies as are required in Holdregger.

It is therefore respectfully submitted that these claims are clearly patentable over the cited Holdregger reference, and reconsideration and allowance of these claims is therefore respectfully solicited.

Claim 50 has been rejected as being anticipated by Bööse *et al.* under 35 U.S.C. § 102(b). The Examiner contends that Bööse *et al.* teaches a chambered doctor blade mounting system (Fig. 1) for applying liquids to a rotatable cylinder 2 in printing equipment with an elongated frame 13 mounted adjacent to the rotatable cylinder, the frame comprising a support and a pair of clamping portions, 19 and 20, and a pair of elongated doctor blades, 9 and 10, mounted on the clamping portions such that the pair of elongated doctor blades are disposed parallel to the rotatable cylinder. It is further contended that each of the pair of clamping portions includes an elongated slit for receiving each of the doctor blades (with the blades held in a "slit" between two pieces of metal), the clamping portions and the support comprising separate parts, and the support including a pair of end portions with the clamping means resiliently clamping the clamping portion to the pair of end portions of the support, the Examiner contending that it appears that the clamping portions are resiliently clamped in Fig. 1. The Examiner interprets "resilient" as meaning "characterized or marked by resilience: as capable of withstanding shock without permanent deformation or rupture," citing Merriam-Webster online dictionary at m-w.com. The Examiner concludes that it appears that the metallic clamping

apparatus of Bööse *et al.* is capable of withstanding shock without permanent deformation or rupture since it is well known that metals can be bent without doing so. This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

The Bööse *et al.* reference is directed to a chambered doctor blade for use in printing processes particularly in which the blade serves to ink a screen roller. In this case, the doctor blades themselves, as shown in Fig. 1, are mounted on the frame 8 with two interconnected metal sections, 13 and 14, made of bent thin sheet metal. The mounting of the doctor blades, 9 and 10, is merely attached by bolt joints, 24 and 25, to the suspension element 3 mounted in machine frame, 4 and 5. The blade itself merely appears to be held between two metallic holders.

Applicants initially refer to amended claim 50 now presented herein. Among other things, this claim now requires that the clamping means comprise an elastomeric material which is disposed within the elongated slit, as well as being accessible from the opening in the slit whereby the elastomeric material is not only resiliently clamping the clamping portion to the pair of end portions of the support, but is also accessible through the opening to assist in removing the doctor blade from the elongated slit. None of this, of course, is present in the Bööse *et al.* reference, which again simply has two bolted metal pieces holding the doctor blade in position. It is therefore believed that claim 50 clearly and patentably distinguishes over the Bööse *et al.*, and reconsideration of this rejection is also respectfully requested.

Claims 29-39, 50, and 55 have been rejected as being obvious over Bööse *et al.* in view of Holdregger under 35 U.S.C. § 103(a). In addition to the Examiner's prior contentions with respect to the Bööse *et al.* reference, the



Examiner admits that Bööse *et al.* does not teach the clamping means being resiliently disposed with respect to the doctor blade. The Examiner contends, however, that Holdregger teaches a doctor blade mounting system including clamping means disposed with respect to the doctor blade to provide a damping action therefor. The Examiner contends that this arrangement simplifies the mounting process for the inking blade, creating a uniform linear clamping force along the length of the blade and obviating distortions in the mounting of the inking blade due to local differences in clamping forces. The Examiner thus concludes that it would be obvious to modify Bööse *et al.* whereby the clamping means is resiliently disposed with respect to the doctor blade taught by Holdregger. This combination is also said to teach that the clamping means is tightly received within the slit (claim 30), that the clamping means fixes the doctor blade by means of friction (claim 31), and the clamping means supports at least one side of the doctor blade disposed within the slit (claim 32). This combination of references is also said to teach the clamping means being resiliently disposed within the slit (claim 32), the clamping means is removable disposed within the slit (claim 34), the clamping means comprises at least one elastomeric member (claim 35), the clamping means is in the shape of a wedge strip (claim 36), the clamping means supports an edge of the doctor blade disposed within the slit (claim 37), and the elastomeric member has a hardness (claim 38). The Examiner then admits that the combination of references does not teach that the elastomeric member has a hardness of about 70 degrees Shore, but contends that one of ordinary skill would know that elastomeric materials have a hardness measured on the Shore A scale, and that hardness will affect its behavior. The Examiner thus concludes that it would be obvious to modify Bööse *et al.* to select a material with a Shore hardness of 70. Finally, the combination of

references is said to teach where the support and the clamping portion comprise separate parts (claim 39), that Bööse *et al.* teaches removably attaching a doctor blade clamping portion to a support with the clamping portion 19 including a first and second slit (first slit inside 19, second slit inside 20), the first slit for accommodating a doctor blade and introducing end portions of the frame into the second slit for resuming support, and while Bööse *et al.* is admittedly not teaching inserting resilient clamping means into the second slit, Holdregger is said to teach an arrangement simplifying the mounting process for the inking blade with the Examiner concluding that it would be obvious to modify Bööse *et al.* to insert resilient clamping means into the second slit based on the Holdregger disclosure. This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

Applicants reiterate all of their above-noted contentions with respect to the clear deficiencies of both the Holdregger and Bööse *et al.* references. Indeed, it is submitted that these deficiencies, in view of the amendments to claims 29, 50 and 55, clearly support the patentable nature of these claims over this combination of references. Once again, irrespective of the combination of references made by the Examiner, even if this combination were properly made, in view of the deficiencies of Holdregger and its total failure to disclose clamping means comprising an elastomeric material disposed within the elongated slit and accessible from the opening in the slit, it is clear not only that these references fail to teach this structure, but that they fail to teach any structure which is capable of both resiliently providing a damping motion for the doctor blade and at the same time rendering the clamping material accessible from the opening in the slit to assist in removing the doctor blade from the slit itself.



Applicants further submit, however, that the combination of references set forth by the Examiner should not be made in the first instance. As stated above, the structure shown in Holdregger is not suitable for the blade mounting system shown in the Bööse et al. reference due to the cleaning problem discussed above. Thus, if the Holdregger apparatus were employed in the printing apparatus shown in Bööse et al., the structure of that product, and the use of a clamping tube 3 received in a separate longitudinal groove 4 as a side chamber in connection with the recess 2 itself would create a serious problem in connection with removal and cleaning of the apparatus. This, of course, is greatly simplified by the specific claimed structure of the apparatus of the present invention. Once again, the use of a pressurized clamping tube in Holdregger, along with the use of two grooves, one for the clamping tube in which it is loaded and unloaded, and one for the squeegee itself, as well as the spring mechanism thereof, greatly complicates and distinguishes the Holdregger product from that of the present invention.

It is therefore respectfully submitted that, based on all of the arguments set forth above, these claims are clearly patentable over the combination of references, and reconsideration of this rejection is also respectfully requested.

Claims 49, 52 and 53 have been rejected as being obvious over Holdregger under 35 U.S.C. § 103(a). The Examiner admits that Holdregger is silent as to the hardness of elastic strip 3 and does not teach the hardness of about 70 degrees Shore. The Examiner contends, however, that one of ordinary skill would know that elastomeric materials have a hardness measured in Shore A scale, and that hardness will affect the behavior thereof. It is thus said to be a matter of routine experimentation to optimize such a value. The Examiner also

admits that Holdregger is silent as to the exact method of installing strip 3 and does not teach lubricating the clamping means prior to inserting into the slit. The Examiner concludes, however, that one of ordinary skill familiar with friction would know to modify Holdregger to lubricate the clamping means prior to inserting into the slit. Holdregger is also said to teach clamping means comprising an elastomeric member and including manually inserting clamping means into the slit. This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

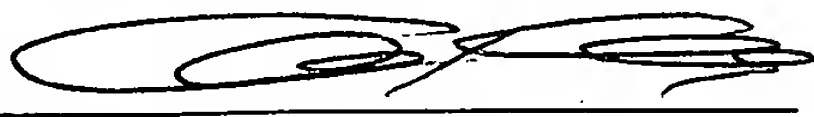
Applicants respectfully repeat all of their above-noted contentions with respect to the clear deficiencies of the Holdregger reference. Once again, in referring to the amendments to claims 40 and 51, it is now believed to be clear that these claims also patentably distinguish over the Holdregger reference, for the same reasons discussed above, without the need to also refer to the specific added limitations in these depending claims.

It is therefore respectfully submitted that all of the claims now presented in this application possess the requisite novelty, utility and unobviousness to warrant their immediate allowance, and such action is therefore respectfully solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

Finally, If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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